

IN THE SPECIFICATION:

Please replace the previously submitted Sequence Listing with the attached Sequence Listing in computer readable form and paper copy.

Please substitute the following for the second paragraph on page 7:

- - Figs. 9A – 9C ~~Figs. 9a and 9b~~ provide a summary of CDR sequences and binding specificities of selected scFv antibodies. - -

Please substitute the following for the paragraph bridging pages 23 and 24 and the first paragraph on page 24:

- - Primary screening of the scFv clones was done by ELISA on primary CLL cells versus normal human PBMC. Clones which were positive on CLL cells and negative on normal PBMC were rescreened by ELISA on normal human B cells, human B cell lines, TF-1 cells, and the CLL-AAT cell line. The clones were also rescreened by ELISA on CLL cells isolated from three different patients to eliminate clones that recognized patient-specific or blood type-specific antigens. Results from representative ELISAs are shown in Figures 2-6 and summarized in ~~Figure 9~~ Figures 9A – C .

The number of unique scFv antibody clones obtained was determined by DNA fingerprinting and sequencing. The scFv DNA inserts were amplified from the plasmids by PCR and digested with the restriction enzyme BstNI. The resulting fragments were separated on a 4% agarose gel and stained with ethidium bromide. Clones with different restriction fragment patterns must have different amino acid sequences. Clones with identical patterns probably have similar or identical sequences. Clones with unique BstNI fingerprints were further analyzed by DNA sequencing. Twenty-five different sequences were found, which could be clustered into 16 groups of antibodies with closely related complementarity determining regions (~~Figure 9~~ Figures 9A – C). - -

Please substitute the following for the paragraph bridging pages 27 and 28:

- - Conversion of scFv-9 to full IgG

Light chain and heavy chain V genes of scFv-9 were amplified by overlap PCR with primers that connect the variable region of each gene with human lambda light chain constant region gene, and human IgG1 heavy chain constant region CH1 gene, respectively. Variable regions of light chain gene and heavy chain gene of scFv-9 were amplified with specific primers and the human lambda light chain constant region gene and the IgG1 heavy chain constant region CH1 gene were separately amplified with specific primers as follows:

R9VL-F1 QP: 5' GGC CTC TAG ACA GCC TGT GCT GAC TCA GTC GCC
CTC 3' (SEQ ID NO: 103 ~~SEQ ID NO: 26~~);

R9VL/hCL2-rev: 5' CGA GGG GGC AGC CTT GGG CTG ACC TGT GAC
GGT CAG CTG GGT C 3' (SEQ ID NO: 104 ~~SEQ ID NO: 27~~);

R9VL/hCL2-F: 5' GAC CCA GCT GAC CGT CAC AGG TCA GCC CAA GGC
TGC CCC CTC G 3' (SEQ ID NO: 105 ~~SEQ ID NO: 28~~);

R9VH-F1: 5' TCT AAT CTC GAG CAG CAG CAG CTG ATG GAG TCC G 3'
(SEQ ID NO: 106 ~~SEQ ID NO: 29~~);

R9VH/hCG-rev: 5' GAC CGA TGG GCC CTT GGT GGA GGC TGA GGA
GAC GGT GAC CAG GGT GC 3' (SEQ ID NO: 107 ~~SEQ ID NO: 30~~);

R9VH/hCG-F: 5' GCA CCC TGG TCA CCG TCT CCT CAG CCT CCA CCA
AGG GCC CAT CGG TC 3' (SEQ ID NO: 108 ~~SEQ ID NO: 31~~);

hCL2-rev : 5' CCA CTG TCA GAG CTC CCG GGT AGA AGT C 3'
(SEQ ID NO: 109 ~~SEQ ID NO: 32~~);

hCG-rev : 5' GTC ACC GGT TCG GGG AAG TAG TC 3'

(SEQ ID NO: 110 ~~SEQ ID NO: 33~~).

Amplified products were purified and overlap PCR was performed. - -